Ordering number: EN 730F

Monolithic Digital IC

SANYO No.730F

LB1450

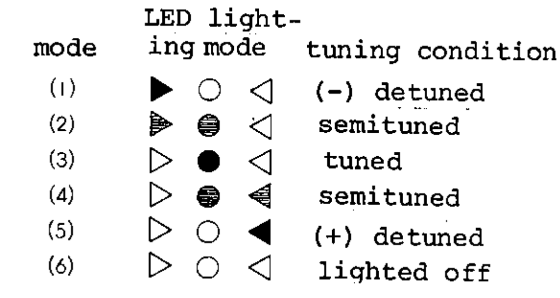
LED Tuning Indicator

Use

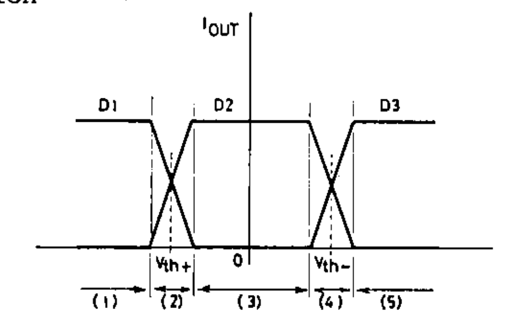
Indicates tuning condition of FM receiver by means of 5 mode - 3 LED's

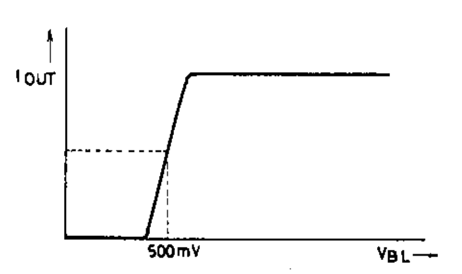
Features

1. 3 LED's display 5 mode tuning condition.
   Since the LED's are driven under constant current supply, the LED current varys as shown below when two LED's are lighted on simultaneously. This causes their brightness to vary, and enables the dynamic indication.
2. Desired tuning width can be set as the threshold width of window comparator is variable externally.
3. No switching radiation can be made as LED current changes over linearly.
4. Blanking at station interval and AM reception is easy to set by blanking pin.
5. Direct interface can be made to IF IC using quadrature detector (ex. LA1231, LA1140, etc.)
6. Single-ended 9 pin packaged with small mounting area.

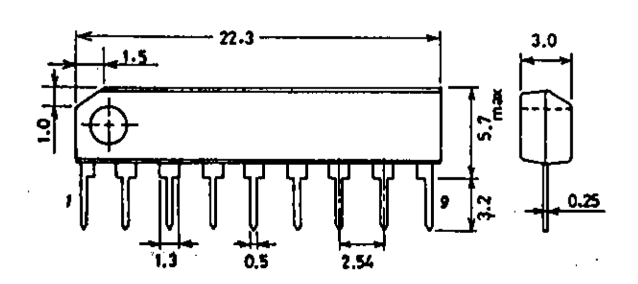


mode	LED lighting mode	tuning condition
(1)	▶ ○ ◁	(-) detuned
(2)	▶ ◍ ◁	semituned
(3)	▷ ● ◁	tuned
(4)	▷ ◍ ◀	semituned
(5)	▷ ○ ◀	(+) detuned
(6)	▷ ○ ◁	lighted off

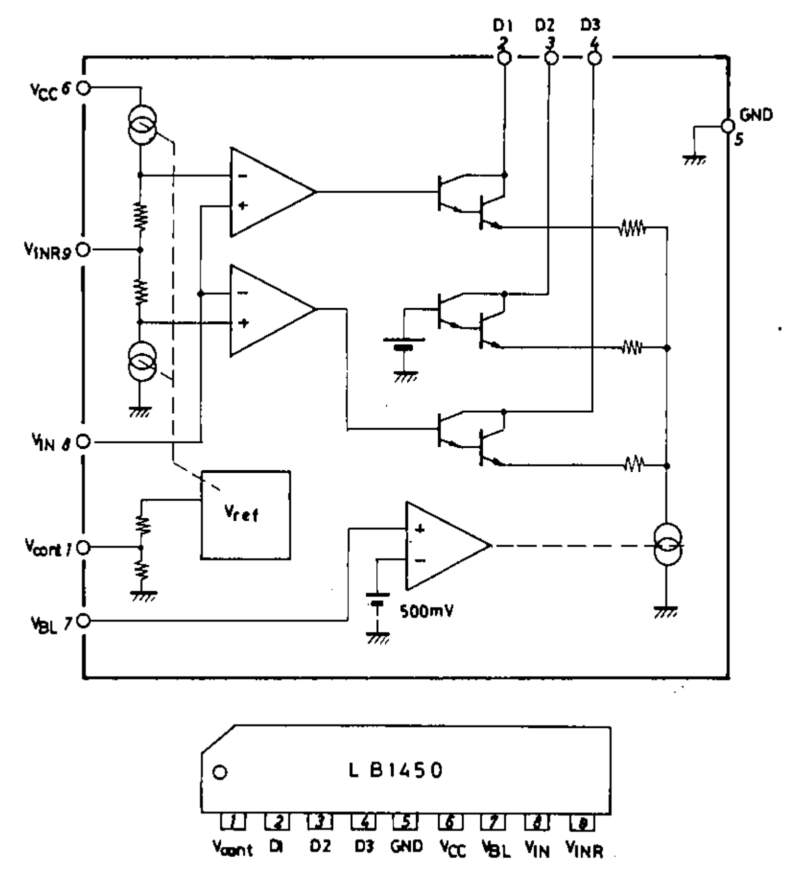




Package Dimensions 3017B
unit : mm



Equivalent Circuit Block Diagram and Pin Assignment



Absolute Maximum Ratings at T_a=25°C

Max. Supply Voltage	V_{CC}max		18	V
Max. Input Voltage	V_{INR}	$V_{CC}>V_{INR}$	-0.3 to +16	V
	V_{IN}	$V_{CC}>V_{IN}$	-0.3 to +16	V
	V_{cont}		-0.3 to +4	V
	V_{BL}	$V_{CC}>V_{BL}$	-0.3 to +16	V
Max. Output Voltage	V_{out}	Pin2, 3, 4	16	V
Allowable Power Dissipation	$P_d$max	T_a=60°C	500	mW
Operating Temperature	Topr		-20 to +70	°C

Allowable Operating Conditions at Ta=25°C

Supply Voltage	V_{CC}	8 to 16	V
Tuning Indicaiton Voltage Width	V_T	200	mV

Electrical Characteristics at T_a=25°C ,V_{CC}=12V

			min	typ	max	unit
Input Bias Current	I_{IN}		-2		0	µA
	I_{INR}		-20		+20	µA
	I_{INBL}		-2		0	µA
Threshold Voltage	V_{th+}	$V_{IN}-V_{INR}$	150	200	250	mV
	V_{th-}	$V_{IN}-V_{INR}$	-250	-200	-150	mV
	V_w		30	50	100	mV
Simultaneous Lighting Width	I_{OUT1}, I_{OUT2}, I_{OUT3}		11	18	25	mA
Output Current	$V_{BL(L)}$		360	430	500	mV
Blanking Threshold Voltage	$V_{BL(H)}$		410	500	550	mV
	I_{OFF}				10	µA
Output Leak Current	I_{CC}	LED current excluded	3.0	3.8	5.6	mA
Current Dissipation						

Application : The case of window width 400mV typ. (±200mV) and interstation blanking.

